

## PATENT COOPERATION TREATY

REC'D 30 SEP 2005

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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PPD 70257/WO	<b>FOR FURTHER ACTION</b>	See Form PCT/PEA/416
International application No. PCT/GB2004/003424	International filing date (day/month/year) 06.08.2004	Priority date (day/month/year) 06.08.2003
International Patent Classification (IPC) or national classification and IPC A01N25/02, A01N25/04, A01N25/30, A01N35/10, A01N47/30, A01N43/40, A01N25/00		
Applicant SYNGENTA LIMITED et al		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand  01.06.2005	Date of completion of this report  04.10.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Lamers, W  Telephone No. +31 70 340-	



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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-17 as originally filed

**Claims, Numbers**

1-15 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing *(specify)*:
  - ☐ any table(s) related to sequence listing *(specify)*:

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	5-7, 12
	No: Claims	1-4, 8-11, 13-15
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial  
applicability; citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: EP-A-0 074 329 (CIBA GEIGY AG) 16 March 1983 (1983-03-16)
- D2: GB-A-1 483 186 (ICI LTD) 17 August 1977 (1977-08-17)
- D3: WO 01/17351 A (GLOCK JUTTA ; CORNES DEREK (CH); FRIEDMANN  
ADRIAN ALBERTO (CH); SYNGEN) 15 March 2001 (2001-03-15)
- D4: GB-A-1 453 443 (ICI LTD) 20 October 1976 (1976-10-20)
- D5: EP-A-1 023 832 (AMERICAN CYANAMID CO) 2 August 2000 (2000-08-02)
- D6: WO 98/32821 A (REYEN MICHAEL JAKOB ; ARYANA NIKIPAD (FR);  
PROCTER & GAMBLE (US)) 30 July 1998 (1998-07-30)
- D7: WO 94/05751 A (HENKEL CORP) 17 March 1994 (1994-03-17)
- D8: WO 98/37760 A (CRISANTI MICHAEL GEORGE ; RECKITT & COLMAN  
INC (US); SMIALOWICZ DENNIS) 3 September 1998 (1998-09-03)

**V.a. Certain observations on the international application**

According to Rule 6.4 PCT a claim which has a reference to another claim (or claims) includes all the features of this claim (or claims). Claims 3-8, 10, 11 and 14 depending directly or indirectly on claim 1 therefore should all include the feature "continuous single phase". All these claims however relate to subject matter which is characterised by comprising more than one phase.

Any agrochemical concentrate comprising more than one phase cannot be a concentrate which is characterised by having a single phase.

This contradiction leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear (Article 6 PCT).

**V.b. Novelty**

The subject matter of claims 1-4, 8-11, and 13-15 is not new (Art. 33(2) PCT):

Document D1 discloses aqueous solution concentrates comprising a pesticide and hydrotropes and containing in addition adjuvants like surface active agents or additional solvents (see D1: page 3, paragr. 2, and paragr. 4 - page 4, paragr. 3; page 5, paragr. 2). Adjuvants can be commercial surface active agents, carbohydrate solvents like plant or mineral oils, silicones etc. (see page 5, paragraph 3). The solution concentrates may comprise as further phase a solid insoluble pesticide. Such concentrates can be prepared by adding the solid pesticide to the solution concentrates (see page 7, paragr. 2 - page 8, paragr. 1). In examples 1-5 various aqueous solution concentrates, containing adjuvants (surface active agents or water-insoluble solvents), hydrotropes and solved pesticides are specified. Examples 6-8 disclose solution concentrates which in addition comprise suspended further pesticides.

With respect to D1 the subject matter of claims 1-4, 9, 10, 13, 14 and 15 is not new (Art. 33(2) PCT).

Document D2 discloses aqueous wetting agent concentrates comprising water, surface active agents (having excellent wetting properties for surfaces like plant foliage) and water soluble compounds like e.g. caprolactone, gamma-butyrolactone etc.. The surface active agents are i.a. low ethoxylated straight chain alcohols. The concentrates are clear homogenous solutions in which the surface active agents are solubilized by the water soluble compounds. After addition of agrochemicals (as solution or dispersion) the concentrates can be diluted and applied (see D2: page 1, lines 9-73; page 2, lines 1-18 and lines 42-55; examples).

With respect to D2 the subject matter of claims 1-3, 9, 13 and 15 is not new (Art. 33(2) PCT).

Document D4 discloses aqueous wetting agent concentrates comprising water, surface active agents (having excellent wetting properties for surfaces like plant foliage) and acetic acid. The surface active agents are i.a. low ethoxylated straight chain alcohols. The concentrates are clear homogenous solutions in which the surface active agents are solubilized by acetic acid. After addition of agrochemicals (as solution or dispersion) the concentrates can be diluted and applied (see D4: page 1, lines 10-43 and lines 67-88; page 2, lines 6-20 and lines 30-39; examples).

With respect to D2 the subject matter of claims 1-3, 9, 13 and 15 is not new (Art.

33(2) PCT).

Document D5 discloses aqueous suspension concentrates comprising crop protection agents and large amounts of adjuvants, having surface active effects and increasing the biological activity of the active agents. Specified adjuvants (used i.a. in the examples) are alkylpolyglycosides commercially available under the names Atplus 430, Atplus 435, Atplus 450, and Atplus 469 which are alkylpolyglycosides already containing hydrotrope agents (see D5: page 2, lines 23-50; page 3, lines 1-3; page 5, lines 6-9 and lines 23-28; see examples 1, 2, 6, 7, 17, 20, and 23).

With respect to D5 the subject matter of claims 1-4, 8, 10, 11, 14, and 15 is not new (Art. 33(2) PCT).

Document D6 discloses transparent aqueous compositions comprising surface active agents, terpene derivatives (like geraniol) and hydrotropes (like cumene or xylene sulfonates) (see D6: page 2, paragr. 1; page 8, paragr. 3 - page 9, paragr. 1; page 14, paragr. 5; examples). Attention is drawn to Chapter IV, 7.6 of the PCT International Preliminary Examination Guidelines as in force from 9 October 1998, and Chapter 12.05 of the PCT International Search and Preliminary Examination Guidelines as in force from March 25, 2004, saying that for determining novelty of the subject-matter of claims directed to a physical entity, non-distinctive characteristics of a particular intended use, should be disregarded.

With respect to D6 the subject matter of claims 1 and 2 is not new (Art. 33(2) PCT).

Document D7 discloses clear aqueous concentrates comprising surface active agents, terpene oils and hydrotropes like Westvaco H240 (see D7: page 3, lines 2-27; page 4, lines 1-8; page 6, lines 2-14; examples). Attention is drawn to Chapter IV, 7.6 of the PCT International Preliminary Examination Guidelines as in force from 9 October 1998, and Chapter 12.05 of the PCT International Search and Preliminary Examination Guidelines as in force from March 25, 2004, saying that for determining novelty of the subject-matter of claims directed to a physical entity, non-distinctive characteristics of a particular intended use, should be disregarded.

With respect to D7 the subject matter of claims 1, 2, and 9 is not new (Art. 33(2) PCT).

Document D8 discloses aqueous concentrates comprising i.a. hydrophobic oils, various oil-based surface active agents, biocides and hydrotropes (see D8: page 1, line 26 - page 2, line 8; page 2, line 26 - page 3, line 2; page 9, lines 1-17). Attention is

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drawn to Chapter IV, 7.6 of the PCT International Preliminary Examination Guidelines as in force from 9 October 1998, and Chapter 12.05 of the PCT International Search and Preliminary Examination Guidelines as in force from March 25, 2004, saying that for determining novelty of the subject-matter of claims directed to a physical entity, non-distinctive characteristics of a particular intended use, should be disregarded.

With respect to D8 the subject matter of claims 1, 2, and 9 is not new (Art. 33(2) PCT).

In as far as understandable (see point V.a. above) the subject matter of claims 5-7 and 12 appears to relate to certain oil in water or water in oil emulsion and microcapsule in water formulation which are prepared by using the concentrates of claims 1 or 2. As such formulations are not disclosed in the prior art, the subject matter of claims 5-7 and 12 (in as far as understandable) appears to be new (Art. 33(2) PCT).

**V.c. Inventive Step**

As the subject matter of claims 1-4, 8-11, and 13-15 is not new, it cannot be considered as involving an inventive step (Art. 33(3) PCT).

Furthermore the subject matter of all claims appears to lack an inventive step for the following reasons: The use of hydrotropes to prepare single phase aqueous agrochemical concentrates or to solubilise oil-based adjuvants into the aqueous medium of such concentrates is known from documents D1, D2, and D3.

In addition, as mentioned in document D5, adjuvants for agrochemical formulations, which contain hydrotropes in admixture with oil-based adjuvants are even commercially available. Concentrated formulation types like oil-in-water or water in oil emulsions, aqueous suspensions, microcapsule suspensions, microemulsions, solutions or suspoemulsions, which appear to be the subject matter of claims 3 - 14 are no more than general knowledge of the skilled person. The utilizations of the concentrate of claims 1 and 2 in such types of formulation therefore are merely several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill (Art. 33(3)).

**V.d. Industrial Applicability**

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The subject matter of claims 1-15 appears to be industrially applicable (Art. 33(4) PCT).